

Radio observatory report and current LOFAR issues

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LOFAR status meeting 20090429

- 1 Observatory status
- 2 Status of issues
- 3 Observation queue

System

- Correlator out of order because of software problem
- CS016 will be decommissioned shortly

Observations

Several TBB experiments

SAS/MAC tests

Failed Effelsberg-Exloo-Nancay experiment

ITRF beamformer tests

Several correlator verification experiments

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Bug list (SOLVED)

- Correlator software problem (weird autocorrelations)

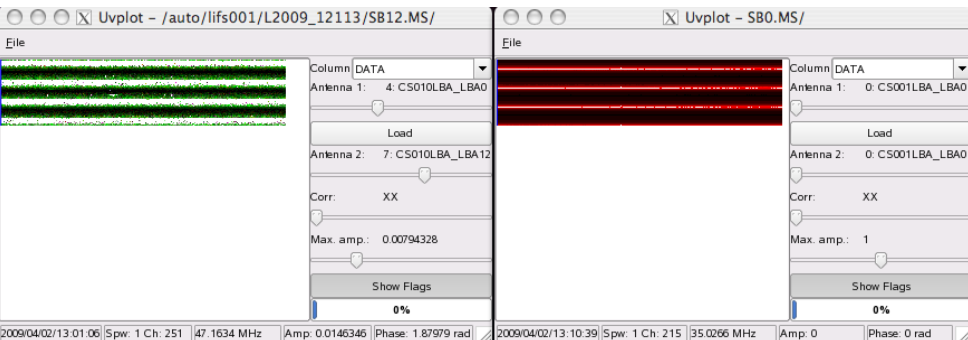
Bug list ((almost) EXPLAINED)

- Signal paths of even RCUs can jump between a high and low state (LBL/LBH switch broken (by ESD?). ew RCU: ESD diode, and no trafo's. Needs more research. Switches are of same type as faulty HBA delay boards. Why only even RCUs: unexplained.
- Phase jumps in waveform generator test at 200 MHz clock (Eric Kooistra)
- Non-hermiticity in ACM blocks of intra-RSP board visibilities in waveform generator tests (Eric Kooistra, will be fixed in RSPDriver)

Bug list(OPEN)

- Very strange, possibly internal RFI (Pandey dataset) Investigated by Harm-Jan Stiepel. Cabinets at CS1 are leaking enormous amounts of RFI. No action will be taken to mitigate this. Go and measure CS302 as soon as it is available
- TP variations/ionospheric absorption (Ger de Bruyn)
- No fringe at long baselines (James Anderson, Jean-Mathias Griessmeier, Nicolas Pradel)
- CS010 unreliable/needs repeated commands before settings “stick” with RCUs
- Unstable signal paths
- AC oscillations Pandey (nobody working on this)
- AC dips (Michiel Brentjens, useful data taken in previous psr busy week)

Correlator problem



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Observation queue

ID	Title	PI	Activity	Status	Creator
	now				
39	CS16 observation for correlator verification	mol	2 hours ago	accepted	mol
22	First TBB HDF5 writing test through socket interface	horneffer	2 weeks ago	accepted	brentjens
31	conversion of data format from .out to .cor for pulsar dataset	singh	3 weeks ago	accepted	singh
25	Transient buffer board read outs	eikelboom	3 weeks ago	accepted	eikelboom
	coming-days				
46	CS302 Station Verification with Pulsars 3: Tile Out Single Ear Primary With Tied-Array Fan Beams (of Two Ears)	stappers	2 hours ago	accepted	hessels
45	CS302 Station Verification with Pulsars 2: Two Beams One From Each HBA Ear	stappers	2 hours ago	accepted	hessels
44	CS302 Station Verification with Pulsars 1: Single Beam, Two Ears (48 Tiles)	stappers	2 hours ago	accepted	hessels
20	SAS/MAC tests	schoenmakers	5 days ago	scheduled	kuper
8	test dataset for trigger algorithm of UHEP mode of CR	singh	3 weeks ago	accepted	singh
7	Test dataset for PPF inversion	singh	3 weeks ago	accepted	singh
30	Transient buffer board read out	eikelboom	3 weeks ago	accepted	eikelboom
13	Single second all sky survey with TBBs	swelles	1 month ago	accepted	brentjens
	next-week				
32	JEEJOANS (Joint Exloo-Effelsberg Jupiter Observation, and Nancay Spiral-antennae)	griessmeier	1 1/2 hours ago	scheduled	griessmeier
47	Station correlator tests with CS302	brentjens	1 1/2 hours ago	specified	brentjens
	next-month				
6	100hrs of pulsars (WR)	leeuwen	3 weeks ago	accepted	leeuwen
9	CS-1 Correlator Test Dataset	anderson	1 month ago	accepted	anderson
11	Max. bandwidth observation	gunst	1 month ago	accepted	gunst
5	Frequency mosaicing experiment	pandey	1 month ago	specified	brentjens
4	Station imaging campaign	wijnholds	1 month ago	accepted	brentjens
	sometime				
43	Test 12 microstationmode using SAS/MAC	schoenmakers	5 days ago	scheduled	kuper